

Appl. No. 10/037,842
Reply Dated May 26, 2006
Reply to Office Action Mailed November 30, 2005

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Amendments to Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-44 (Canceled.)

45. (New) A remote gateway agent for enabling remote data access to and task execution on a processing system through a remote proxy agent comprising:

the remote gateway agent residing on a gateway, wherein the gateway is accessible to a user device and to a remote proxy agent via a network, and wherein the remote gateway agent is adapted for:

receiving a request from the user device for a task to be performed by the processing system; and

forwarding the task request to the remote proxy agent residing on the processing system, wherein the remote proxy agent is adapted for:

receiving and analyzing the task request from the remote gateway agent;

directing the request to the processing system for processing; and

sending a result from the processing system to the remote gateway agent;
and

wherein the remote gateway agent is further adapted for sending the result to the user device via the network.

46. (New) The remote gateway agent of claim 45 wherein the processing system is selected from the group consisting of a personal computer, a multipurpose printing center, and a computer-connected peripheral.

47. (New) The remote gateway agent of claim 45, wherein the gateway is further adapted for:

receiving the result; and

transcoding the result for viewing by the user device.

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48. (New) The remote gateway agent of claim 45, wherein the processing system comprises at least one application selected from the group consisting of an e-mail application, a word processing application, a facsimile application, a telephony application, and an operating system component application.

49. (New) The remote gateway agent of claim 45, wherein the task request is selected from the group consisting of searching a directory, opening a target file, accessing an e-mail application, sending a fax, reading a document over a dialed telephone connection, powering on a device connected to the processing system, and powering off the device connected to the processing system.

50. (New) The remote gateway agent of claim 45, wherein the remote gateway agent is further adapted for:

receiving a registration request from the remote proxy agent, wherein the remote proxy agent resides on the processing system; and
registering the remote proxy agent with the remote gateway agent.

51. (New) The remote gateway agent of claim 45, wherein the remote gateway agent is further adapted for:

determining whether the user device is entitled to request the task from the processing system; and
establishing a path to a remote proxy agent if the user device is entitled to request the task from the processing system.

52. (New) The remote gateway of claim 45, wherein the remote proxy agent is further adapted for registering with the remote gateway agent.

53. (New) The remote gateway agent of claim 45, wherein the remote gateway agent is installed in a wireless gateway in a wireless data network.

54. (New) The remote gateway agent of claim 53, wherein the user device is a wireless network-capable device.

55. (New) The remote gateway agent of claim 54, wherein the wireless network-capable device is a WAP enabled cellular phone.

56. (New) The remote gateway agent of claim 45, wherein the request specifies a serial execution of serial tasks and return of results.
57. (New) The remote gateway agent of claim 45, wherein a plurality of requests are sent to the processing system in an un-interrupted data session.
58. (New) A remote proxy agent residing in a processing system for enabling remote data access to a software application comprising:
- a registration processor adapted for sending a registration request to a remote gateway agent residing on a gateway, wherein the gateway is accessible to a user device via a network;
 - a request analyzer adapted for receiving, parsing and verifying a task request forwarded by the remote proxy agent from the user device;
 - a request processor adapted for processing the task request for task-performance instructions;
 - an application program interface adapted for sending the task-performance instruction to the software application; and
 - a results processor adapted for sending a result from the software application to the remote proxy agent for forwarding to the user device via the network.
59. (New) The remote proxy agent of claim 58, wherein the processing system is selected from the group consisting of a personal computer, a multipurpose printing center, and a computer-connected peripheral.
60. (New) The remote proxy agent of claim 58, wherein the gateway is further adapted for:
- receiving the result; and
 - transcoding the result for viewing by the user device.
61. (New) The remote proxy agent of claim 58, wherein the task request is selected from the group consisting of search a directory, opening a target file, accessing an e-mail application, sending a fax, reading a document over a dialed telephone connection, powering on a device connected to the processing system, and powering off the device connected to the processing system.

62. (New) The remote proxy agent of claim 58, wherein the software application is selected from the group consisting of an e-mail application, a word processing application, a facsimile application, a telephony application, and an operating system component application.
63. (New) The software application of claim 58, wherein the request analyzer, the request processor and the results processor utilize resident processing capability of the host device.
64. (New) A method for enabling remote data access to and task execution on a processing system through remote agents;
- receiving a registration request from a remote proxy agent at a remote gateway agent, wherein the remote proxy agent resides on the processing system and wherein the remote gateway agent resides on a gateway;
 - registering the remote proxy agent with the remote gateway agent;
 - receiving a request for access to the processing system from a user device;
 - determining whether the user device is entitled to access the processing system; and
 - forwarding the request for access to the processing system if the user device is entitled to access the processing system; and
 - receiving and analyzing the request from the remote gateway agent at the remote proxy agent;
 - directing the request to the processing system for processing; and
 - sending a result from the processing system to the user device via the network.
65. (New) The method of claim 64, wherein the user device is a wireless, WAP enabled phone and the network is the Internet network.
66. (New) The method of claim 64, wherein the gateway connects a wireless network and the Internet.
67. (New) The method of claim 64, wherein directing the request to the processing system for processing comprises directing the request to the processing system for processing via an application program interface between the remote gateway agent and an application specified in

the request.

68. (New) The method of claim 64, wherein the processing is performed by an operating system component of the processing system.
69. (New) The method of claim 64, wherein in the steps are conducted repeatedly in the course of a single data session between the user and the data system.
70. (New) A remote gateway agent interfaced to a network for enabling remote data access to a processing system comprising:
the remote gateway agent adapted for:

receiving a registration request from a remote proxy agent, wherein the remote proxy agent resides on the processing system;

registering the remote proxy agent with the remote gateway agent;

receiving a request for access to the processing system from a user device via the network;

determining whether the user device is entitled to access the processing system;
and

forwarding the request for access to the processing system for processing if the user device is entitled to access the processing system;

receiving a result from the processing system; and

forwarding the result to the user device via the network.

71. (New) The remote gateway agent of claim 70, wherein the processing system is a personal computer.
72. (New) The remote gateway agent of claim 70, wherein the processing system is a multi-purpose printing center.
73. (New) The remote gateway agent of claim 70, wherein the processing system is a computer-connected peripheral.
74. (New) The remote gateway agent of claim 70, wherein the request is selected from the

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group consisting of searching a directory, opening a target file, sending an e-mail, sending a fax, reading a document over a dialed telephone connection, powering on a device connected to the processing system, powering off the device connected to the processing system.

75. (New) The remote gateway of claim 70, wherein the remote gateway agent resides on a remote gateway and wherein the remote gateway is adapted for:

receiving the result; and

transcoding the result for forwarding to, and viewing by, the user device.

76. (New) The remote gateway agent of claim 70, wherein the remote gateway agent is installed in a wireless gateway in a wireless data network.

77. (New) The remote gateway agent of claim 76, wherein the with the user device is a wireless network-capable device.

78. (New) The remote gateway agent of claim 77, wherein the wireless network-capable device is a WAP enabled cellular phone.

79. (New) The remote gateway agent of claim 70, wherein a request specifies a serial execution of serial tasks and return of results.

80. (New) The remote gateway agent of claim 70, wherein many requests are sent to the processing system in an un-interrupted data session.